

AMENDMENTS TO THE CLAIMS

1-9. (Canceled)

10. (Currently amended) ~~[[The]]~~ A method of ~~claim-9~~ manufacturing a proppant, the method comprising the steps of: forming a sol-gel composition from ceramic precursors; and shaping and curing the sol-gel composition to form particulate sol-gel ceramic having a roundness and compressive strength suitable for use as a proppant; in which the sol-gel composition is a blend of aluminosilicates and aqueous solutions of alkali metal silicates.

11. (Currently amended) The method of Claim 10 ~~in which~~ wherein the aluminosilicates comprise geopolymers.

12-22. (Canceled)

23. (New) A proppant comprising a particulate composition which is a blend of aluminosilicates and aqueous solutions of alkali metal silicates.

24. (New) The proppant of Claim 23 wherein the particulate composition is a particulate sol-gel composition.

25. (New) A proppant comprising a particulate composition, wherein the particulate composition comprises a geopolymer.

26. (New) The proppant of Claim 25 wherein the particulate composition is a particulate sol-gel composition.

27. (New) A proppant comprising a sol-gel ceramic, wherein the sol-gel ceramic is unsintered and made by blending, forming, and curing at temperatures below 200°C.

28. (New) The proppant of Claim 27 wherein the sol-gel ceramic is unsintered and made by blending, forming, and curing at temperatures below 80°C.

29. (New) The proppant of any one of Claims 23-28 further comprising a coating selected from the group consisting of an epoxy resin, a furan resin, a phenolic resin and a combination of resins.

30. (New) The proppant of any one of Claims 23-28 further comprising a material selected from the group consisting of a filler, an additive, and both a filler and an additive.

31. (New) A proppant comprising a geopolymer, wherein the geopolymer is unsintered and made by blending, forming, and curing at temperatures below 200°C.

32. (New) The proppant of Claim 31 wherein the geopolymer is unsintered and made by blending, forming, and curing at temperatures below 80°C.

33. (New) A method of manufacturing a proppant, the method comprising the steps of: forming a composition from a geopolymer; and shaping and curing the composition to form a pellet; wherein the pellet has a roundness and compressive strength suitable for use as a proppant.

34. (New) The method of Claim 33 wherein the composition is a sol-gel composition.

35. (New) The method of any one of Claims 10, 11, 33 and 34 wherein the composition is unsintered.

36. (New) The method of any one of Claims 10, 11, 33, and 34 wherein the forming, shaping and curing is carried out at temperatures below 200°C.

37. (New) The method of any one of Claims 10, 11, 33, and 34 wherein the forming, shaping and curing is carried out at temperatures below 80°C.

38. (New) The method of any one of Claims 10, 11, 33, and 34 wherein the forming, shaping and curing comprises: forming spheroidal pellets; smoothing the spheroidal pellets; and curing the spheroidal pellets.

39. (New) The method of any one of Claims 10, 11, 33, and 34 comprising the further step of coating the proppant.

40. (New) The method of any one of Claims 10, 11, 33, and 34 comprising the further step of coating the proppant with a coating selected from the group consisting of an epoxy resin, a furan resin, a phenolic resin and a combination of resins.

41. (New) The method of any one of Claims 10, 11, 33, and 34 comprising the further step when forming the composition of adding material selected from the group consisting of a filler, an additive, and both a filler and an additive.